Work Order ID 90271

Packaging

\*90271\*

Page 1

September-14-12 8:56:28 AM Item ID: D350-689-021 Accept Setup Start \*N900040100\* **Revision ID:** Item Name: Dual High Back Seat, LH Start Qty: 1.00 **Start Date:** 14/09/2012 **Cust Item ID: Required Date:** 28/09/2012 **Req'd Qty:** 1.00 **Customer:** Reference: Run Process Plan: MLJ Date: 12-09-14 Tooling: Approvals: Date: QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool# Plan Reject Reject Accept Insp. Work Center ID **Description** Qty Qty **Run Hours** Code Number Stamp **Revision Nbr Draw Nbr** DSI 9588 Α IIN-D350-689 В 100 DOCUMENT CONTROL \*100\* 12 12 04 DC Document Control Photocopy bluefile and create labels per PPP D350-689-021 CHG005 110 Pick Kit 0.00 \*110\* Packaging 0.00 Memo

											DQA:	Da Da	le.	
NCR:	Yes	/ No				WORK ORDER NON-O	OI	NFORM	MANCE / UPDATE		QA Closed:	 Da	te:	4
Work Ord	or:					DISPOSITION			AGAINST		PARTMENT	· · · · · · · · · · · · · · · · · · ·		
Part No.  NCR No.						Rework Skid-tube Crosstube  Scrap Machining Small Fab  Use-as-is Thermoforming Finishing  Work Order Update Large Fab Composite				Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier			Engineering Quality Other	
Root Descri					Descri	tion of work order update		Initial	Action		Sign &			
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Cracks Broken/Damaged				Broken/Damaged		4	on Incomplete		Part Incorred		匚	Weld		
		Crushed/	Crimped.		ļ	Burrs	<u></u>	-1	ions Incomplete/Unclear		Part Lost/Mi	ssing	L	Wrong Stock Pulled
		Cuffs			_	Contamination	$\perp$	Mainte	nance		Part Moved			
	L	Heat Trea	t			Countersink		Mislabe	led		Positioned Wrong		_	7
	Inspection Strip in Tube Cut Too S				Cut Too Short	Misread				Power Loss/	Surge		Other	

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

Page 2 September-14-12 8:56:28 AM D350-689-021 Item ID: Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Dual High Back Seat, LH \*1\* Start Date: 14/09/2012 Start Oty: 1.00 **Cust Item ID: Required Date:** 28/09/2012 Reg'd Oty: 1.00 **Customer:** Reference: Run Process Plan: Date: Approvals: Tooling: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. **Work Center ID Description** Run Hours Code Qty Qty Number Stamp QC4- 100% Inspect kits for completeness 120 \*120\* QC Memo Quality Control 130 0.00 Packaging \*130\* Packaging 0.00 Memo Packaging Identify and pack for shipping as per PPP D350-689-021 Location: 16059 PPP Rev: 140 QC21- Final Inspection - Work Order Release 0.00 MLS 12-12-05 \*140\* QC 0.00 Memo Quality Control

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Work Ord	or.				. =10	DISPOSITION AGAINST			SAINST DE	DEPARTMENT/PROCESS				
Part No						Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Use-as-is Thermoforming Finishing			all Fab	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier			Engineering Quality Other
Root					Descri	ption of work order update		Initial	Action		Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Description		Date	Verification	n	QC Inspector
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Equip/Tooling														
Operator											;			
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Setup					1									
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Land	ing (	Gear				General		-				1		
Bending						Bend		Grain		<u></u>	Ovalized			Pressure/Forced
	Centre Not Concentric to O/S				o/s	BOM/Route	L	Hardwa	re		Over/Under	tolerance	_	Temperature/Cure
	Cracks					Broken/Damaged		Inspecti	ion Incomplete		Part Incorre	ct ·	L	Weld
Crushed/Crimped_					Burrs		Instruct	ions Incomplete/Unclear	·	Part Lost/Mi	issing	L	Wrong Stock Pulled	
	Cuffs					Contamination		Mainte	enance		Part Moved			
	Г	Heat Trea	ıt			Countersink		Mislabe	eled		Positioned Wrong			_
	Inspection Strip in Tube			Tube		Cut Too Short		Misread	1	Power Loss/	Surge		Other	

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

# **Picklist Print**

September-14-12 8:56:31 AM

Work Order ID: 90271

\*90271\*

Parent Item:

D350-689-021

\*D350-689-021\*

87578

Parent Item Name: Dual High Back Seat, LH

**Start Date:** 14/09/2012

**Required Date: 28/09/2012** 

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:A 08-12-23 new issue DD verified by: LL 08.12.24 IPP

Rev:B chg002 DD 10.02.12 verified by:JLM

IPP Rev:C IPP Rev:D 12.01.12

chg004 DD 11.09.28 verified by:JLM

now @ CHG005 (ecn12-501) DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D350-689-023  D350-689-023  Energy Attenuating Floor Prov	_023* visions	Manufactured	No			110	Each	3.0000	**	2	D		
SmP				Location FG010	3689	<u>Loc Q</u>	<u>3</u>	Loc Code	_		`		

D350-689-043
*D350-689-043
Dual High Back Seat Assembly

D3018-1

Manufactured No

Manufactured

110 Each 7.0000

Each

0.0000



\*\*





Seat Cushion

Location	<u>.</u>	Loc Qty	Loc Code
ST420A		3	
	71713	1	
	77117	2	
ST424		4	
	88355	4	

											DQA	\:Da	ite:		
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFOR	MANCE / UP	DATE					
											QA Closed	d: Da	ite:	•	
Work Ord	er.					DISPOSITION				AGAINST DEPARTMENT/PROCESS					
VVOIR OIG	C1.					Rework	Skid-tube Crosstube			] Water Jet			Engineering		
Part No.						Scrap	1	B.	Machining	Small Fab	Pr	od. Eng. Coor.		Quality	
					Use-as-is	]	Thern	noforming	Finishing	Rec/St	ore/Packaging		Other		
NCR I	No.					Work Order Update	]		Large Fab	Composite		Supplier		·	
D = -1			1	<u> </u>	Docori	ntion of work order undate		Initial	٨	ction	Sign &	<u> </u>			
Root		Date	Cton	Qty		ption of work order update or Non-conformance	1	nief Eng		cription	Date	Verificatio	'n	QC Inspector	
Cause Doc/Data		Date	Step	Qty		of Non-comormance	101	ner Ling	Desc	inpuon .	Date	Verification	<del>''</del>	Qe mspector	
Equip/Tooling	$\vdash$														
Operator	-						1								
Material															
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Other															
Process															
Supplier															
Training															
Unapproved				<u> </u>											
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Landi	_	1				General	_	1		<del></del>	7		_	1	
					Bend		Grain		<u> </u>	Ovalized		<u> </u>	Pressure/Forced		
	Centre Not Concentric to O/S			ntric to	BOM/Route	<u> </u>	Hardwa			<b>⊣</b> `	er tolerance	-	Temperature/Cure		
	Cracks					Broken/Damaged	<u>_</u>	1	on Incomplete	–	Part Incorr		$\vdash$	Weld	
	L	Crushed/	Crimped.		_	Burrs	$\vdash$	-	ions Incomplete/	'Unclear	Part Lost/I	_		Wrong Stock Pulled	
		Cuffs			_	Contamination		Mainte			Part Moved				
	<u> </u>	Heat Trea			<b> </b>	Countersink	$\vdash$	Mislabe			Positioned Wrong		_	امرا	
	Inspection Strip in Tube Cut Too Short					L	Misread			Power Loss/Surge			Other		

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

September-14-12 8:56:32 AM

Work Order ID: 90271

\*90271\*

Parent Item:

D350-689-021

Parent Item Name: Dual High Back Seat, LH

Manufactured

\*D350-689-021\*

**Start Date: 14/09/2012** 

**Required Date: 28/09/2012** 

7.0000

Each

Start Qty: 1.00

Required Qty: 1.00

D3019-1

Location	<u>1</u>	Loc Qty	Loc Code
ST420A		3	
	71714	1	
	77118	2	
ST425		4	
	88418	4	

											DQA:	Date	e:	
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORI	MANCE / UPDATE		·			
											QA Closed:	Date	e:	
Work Ord	er.					DISPOSITION			AGAINS	T DE	EPARTMENT/PROCESS			
Work Ord	٠٠٠.					Rework		Skid-tube Crosstub	e	]	Water Jet	Engineering		
Part I	No.					Scrap	1	1	Machining Small Fa	_	Pro	d. Eng. Coor.	Quality	
	•				<del></del>	Use-as-is Th			noforming Finishin	g	Rec/Stor	e/Packaging	Other	
NCR I	NCR No.					Work Order Update	]		Large Fab Composit	e	]	Supplier		
											<b>,</b>			
Root						ption of work order update	1	Initial	Action		Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector	
Doc/Data	Ш		}							_				
Equip/Tooling	Щ													
Operator				1										
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Other	Ш			•										
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Training														
Unapproved														
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Landi	ng G	Gear				General	_	1		<del></del>	7	_	_	
		Bending			<u> </u>	Bend		Grain		$\perp$	Ovalized	1	Pressure/Forced	
	Ш	Centre Not Concentric to O/S BOM/Route				L	Hardwa		_	Over/Under	<u> </u>	Temperature/Cure		
-	$\vdash$	Cracks				Broken/Damaged	<u></u>	1	on Incomplete	_	Part Incorred	<b>-</b>	Weld	
	-	Crushed/0	Crimped.			Burrs		4	ions Incomplete/Unclear	_	Part Lost/Mi	ssing	Wrong Stock Pulled	
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	Ш	Heat Trea	t		<u> </u>	Countersink	L_	Mislabe		_	Positioned V		<del></del> 1	
		Inspection	n Strip in	Tube		Cut Too Short		Misread	<del>I</del>		Power Loss/	Surge [	Other	
	Ripples in Bend Drill Holes						Offset							

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

# **DART SERVICE INSTRUCTION**

TO AMEND INSTALLATION INSTRUCTIONS IIN-D350-689 REV. B
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-689 REV. 1

REF. TCCA STC: SH02-33 REF. FAA STC: SR01620NY REF. EASA STC: EASA.IM.R.S.01453 REF. TCA STC: 2005S03-09

#### 1.0 PURPOSE

For D350-689-021/-023 Kits at CHG 005/004 and later, the D3026-1 Channel has been replaced with the D4575-1 Beam and D4575-3 Doubler and the D3234-3 Doubler has been removed. Consequently, the installation instructions for D350-689-021/-023 at CHG 005/004 are updated per Section 2.0 of this Service Instruction. The parts list update is shown in Section 4.0 of this Service Instruction. There is a negligible change to the weight and balance.

## 2.0 INSTALLATION CHANGES

Section 3.9, INSTALLATION OF D350-689-023 ENERGY ATTENUATING FLOOR PROVISIONS KIT (pages 8 and 9 of IIN-D350-689), is changed as follows:

#### Item 3.9.8 is

If there is an existing stringer at LBL 27.33, it will need to be removed from that location. Locate D4575-1 Beam and D4575-3 Doubler as shown in Figure 1 of this Service Instruction. Transfer drill existing holes from the aircraft floor to the D4575-1 Beam and D4575-3 Doubler. Ensure 1.0" to 1.5" rivet pitch and add additional holes if required. If there is no existing stringer, locate D4575-1 Beam and D4575-3 Doubler as shown in Figure 1 of this Service Instruction and drill Ø0.128" holes on a 1.0" to 1.5" pitch.

Note: Drill a Ø1.00° (Ø25.4 mm) hole in the D4575-1 Beam to clear extension tube of collective and cutout as required for clearance of collective opening and fwd bulkhead as shown in Figure 2 of this Service Instruction.

#### Item 3.9.8 was:

If there is an existing stringer at LBL 27.33, it will need to be removed from that location. Locate D3026-1 Channel as shown in Figure 4 and transfer existing holes from the aircraft floor to the D3026-1 Channel. Ensure 1.0" to 1.5" rivet pitch and add additional holes if required. If there is no existing stringer, locate D3026-1 Channel as shown in Figure 4 and drill Ø0.128" holes on a 1.0" to 1.5" pitch.

#### Item 3.9.10 is:

Attach D4575-1 Beam and D4575-3 Doubler to floor using qty (14) MS20426AD4 rivets.

#### Item 3.9.10 was:

Attach D4575-1 Channel to floor using qty (14) MS20426AD4 rivets.

#### Item 3.9.12 is no longer applicable:

Rivet D3234-3 Doubler to D3026-1 Channel as shown in Figure 7 using MS20470AD4 rivets.

#### Item 3.9.12 was:

Rivet D3234-3 Doubler to D3026-1 Channel as shown in Figure 7 using MS20470AD4 rivets.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO \_\_9\_023\\_\_MC=
NO \_\_9\_023\\_\_MC=
12-09-17

DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01
BY: , D. SHEPHERD (DE # 02)
DATE: 11.12.23 CERT. NO.: SH02-33 ISSUE NO.: 1

CANADA

Α	NEW ISS	SUE	MB	11.12.22				
REV.		1	DESCRIPTION BY	DATE				
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CHECK		#	DRAWING NO. DSI 9588	REV. A				
MFG. A		-W	TITLE	SHEET 1 OF 4 SCALE				
DE API	PR.	#	INSTALLATION CHANGE					
DATE	11.1	2.22	COPYRIGHT @ 2011 BY DART AEROSPACE LTD  THIS DOCUMENT IS PRIVATE AND ONFIDENTIAL AND IS SUPPLED ON THE EXPRESS CONTION THAT IT IS  NOT TO BE USED FOR ANY PURPOSE OR COPED ON COMMUNICATED TO ANY OTHER PERSON WITHOUT					

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Work Ord	er.					DISPOSITION				AGAINST DE	PARTMENT	PARTMENT/PROCESS			
Part No				Rework Scrap Use-as-is Work Order Update  Skid-tube Machining Machining Small Fab Thermoforming Large Fab Composite		Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other							
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	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld			
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		<del></del>				Cut Too Short		Misread	1		Power Loss,	Other			

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

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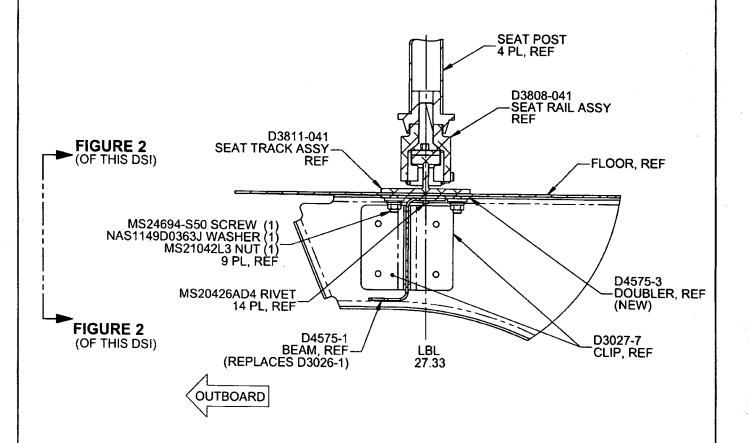


FIGURE 21: Cross Section View T-T from Figure 19 (IIN-D350-689)
FIGURE 25-21: Cross Section View T-T from Figure 25-19 (ICA-D350-689)

# FIGURE 1: UPDATES TO FIGURE 21 (IIN-D350-689) AND 25-21 (ICA-D350-689)

With reference to Figures 19 and 20 of IIN-D350-689 (Figures 25-19 and 25-20 of ICA-D350-689)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

**APPRQVED** 

BY: D. SHEPHERD (DE # 02)

DATE: 11.12.
CERT. NO.: SH02ISSUE NO.: 1

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**DESIGN** 

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MFG. APPR.

**APPROVED** 

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 HAWKESBURY	, ONTARIO, CANADA	
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Work Ord	or.					DISPOSITION				AGAINST DE	PAR	TMENT	PROCESS		
Work Ord	٠٠.					Rework	1		Skid-tube	Crosstube	7		Water Jet		Engineering
Part i	No.					Scrap			Machining	Small Fab	1	Pro	d. Eng. Coor.	-	Quality
	•					Use-as-is		Therm	noforming	Finishing	] י	Rec/Stor	e/Packaging		Other
NCR I	No.					Work Order Update			Large Fab	Composite			Supplier	·	
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	Ш	Inspection	n Strip in	Tube	_	Cut Too Short		Misread			Pov	wer Loss/	Surge	L	Other
		Ripples in	Bend			Drill Holes	1	Offset							

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

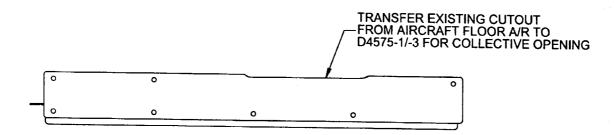
Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

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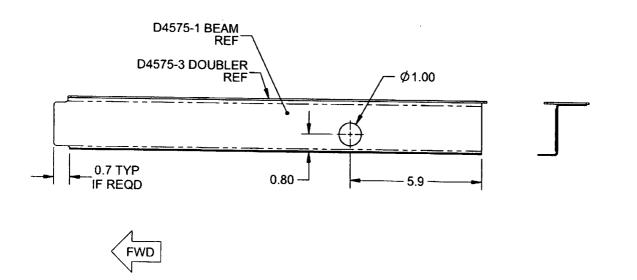


FIGURE 2: RELIEFS ON D4575-1/-3 (ONLY D4575-1/-3 SHOWN FOR CLARITY) VIEW LOOKING INBOARD

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

BY:
D. SHEPHERD (DE # 02)

DATE: 11.12.23
CERT. NO.: SH02-33
ISSUE NO.: 1

DESIGN	8	DART AEROSPACE LTD				
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DATE 11.1	2.22	COPYRIGHT © 2011 BY DART AEROSPACE LTD  THIS DOQUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS  NOT TO BE USED FOR ANY PURPOSE OR COMPAUNICATED TO ANY OTHER PERSON WITHOUT  WRITTEN PERMISSION FROM DART AEROSPACE LTD.				

NCR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDAT	Ε

DQA:	Date:	

											QA Closed:	Da	ite:	
Work Orde	er:		_			DISPOSITION				AGAINST DI	EPARTMENT	/PROCESS		
Part N	 No					Rework Scrap Use-as-is Work Order Update			Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	<b>-</b> i	Water Jet d. Eng. Coor. re/Packaging Supplier		Engineering Quality Other
Root	T				Descri	ption of work order update	11	nitial	Ad	ction	Sign &			
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Lanu		Jending Centre No Cracks Crushed/C Cuffs Heat Trea	Crimped.		o/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink		•	on Incomplete ions Incomplete, nance	/Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V	ct issing		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	-	nspection		Tube	<u> </u>	Cut Too Short	—	Misread			Power Loss/			Other
	—	ipples in				Drill Holes	$\vdash$	Offset		<u> </u>		ū		
	-	orque W		xtrusio	,	Drawing	$\vdash$		Calibration					
	-	urning Se				Finish		Out of S	Sequence					
_	-	Vave/Twi		e		Folio		Outside	Dimensions					

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#### 4.0 PARTS LIST CHANGE

The parts list of D350-689-021/-023 at CHG 005/004 or later is amended as follows:

5. PARTS LIST (IIN-D350-689) 25.10 PARTS LIST (ICA-D350-689)

<u>IS:</u>

Qty -011	Qty -013	Qty -015	Qty -017	Qty -019	Ofy, -021	Qty -023	Qty -041	Qty -043	Part Number	Description
х									D350-689-011	DUAL HIGH BACK SEAT INSTALLATION, LH
1	Х								D350-689-013	FLOOR PROVISIONS KIT
		Х							D350-689-015	SEAT MODIFICATION KIT
			X						D350-689-017	SHOULDER HARNESS KIT
				Х					D350-689-019	CONTROL GUARD KIT
					x				D350-689-021	DUAL HIGH BACK SEAT INSTALLATION, LH
						X			D350-689-023	ENERGY ATTENUATING FLOOR PROVISIONS KIT
1							X		D350-689-041	DUAL HIGH BACK SEAT ASSEMBLY
L	L		<u> </u>	L		-		=X=	1D350-689-043.	DUAL HIGH BACK SEAT ASSEMBLY
	1								D3026-1	CHANNEL (REMOVED FROM -023)
	1			[					D3234-3	DOUBLER (REMOVED FROM -023)
						1			D4575-1	BEAM (REPLACES D3026-1 IN -023)
L			L	<u></u>		1	<u> </u>		D4575-3	DOUBLER (NEW IN -023)

### WAS:

Qty -011	Qty -013	Qty -015	Qty -017	Qty -019	Qty -021	Qty -023	Qty -041	Qty -043	Part Number	Description
X									D350-689-011	DUAL HIGH BACK SEAT INSTALLATION, LH
_1_	Х								D350-689-013	FLOOR PROVISIONS KIT
		X							D350-689-015	SEAT MODIFICATION KIT
			X						D350-689-017	SHOULDER HARNESS KIT
				Х				L	D350-689-019	CONTROL GUARD KIT
					Х				D350-689-021	DUAL HIGH BACK SEAT INSTALLATION, LH
					1	X			D350-689-023	ENERGY ATTENUATING FLOOR PROVISIONS KIT
1	l						X		D350-689-041	DUAL HIGH BACK SEAT ASSEMBLY
					1			Х	D350-689-043	<b>DUAL HIGH BACK SEAT ASSEMBLY</b>
	1				<del>-</del>	1			D3026-1	CHANNEL
				L	L	<u> </u>	<u> </u>	<u> </u>	1 03020-1	CHAINNEL
	1					1			D3234-3	DOUBLER

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01

APPROVED D. SHEPHERD (DE # 02)

DATE: CERT. NO.: ISSUE NO.: 11.12.23 SH02-33

	i				
DESIGN	B	DART AEROSPACE L	TD		
DRAWN	4	HAWKESBURY, ONTARIO, CANAL			
CHECKED	_#	DRAWING NO.	REV. A		
MFG. APPR.	N/À,	DSI 9588	SHEET 4 OF 4		
APPROVED	#	TITLE	SCALE		
DE APPR.	4	INSTALLATION CHANGE	NTS		
DATE 11.1	2.22	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE LISTED FOR MAY DISPOSE OF CONFIDENCE OF THE PRIVATE CONTINUE OF THE PRIVATE CON			

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										DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-C	ONFOR	MANCE / UP	DATE	QA Closed:	Date:	
Work Ord	er:		_			DISPOSITION	i		AGAINST DE	PARTMENT,		
Part	No.		·		<del></del>	Rework Scrap Use-as-is		Skid-tube  Machining moforming	Crosstube Small Fab Finishing		Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR	No.					Work Order Update		Large Fab	Composite		Supplier	
Root					Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	ŀ	Date	Step	Qty	(	or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												

#### **Landing Gear** General Pressure/Forced Bending Bend Grain Ovalized Centre Not Concentric to O/S BOM/Route Temperature/Cure Over/Under tolerance Hardware Broken/Damaged Weld Cracks Inspection Incomplete Part Incorrect Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Crushed/Crimped. Burrs Cuffs Contamination Maintenance Part Moved Heat Treat Countersink Mislabeled Positioned Wrong Other Inspection Strip in Tube Misread Power Loss/Surge Cut Too Short Ripples in Bend Drill Holes Offset Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence Folio Wave/Twist in Tube **Outside Dimensions**

**FAULT CATEGORY** 

Other Process Supplier Training Unapproved

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# 4. WEIGHT AND BALANCE

The following weight and balance information is for the Dart Dual High Back Seat Installation. The weight and balance of the parts that are removed from the aircraft to perform this installation are the responsibility of the installer.

		LA	TERAL	LONG	SITUDINAL
Installation	Weight	Arm	Moment	Arm	Moment
D350-689-011 Dual High Back Seat	27.6 lb	-18.2 in	-502 in-lb	60.7 in	1675 in-lb
Installation, Fwd Position	_12.5 kg	-0.46 m	-5.8 m-kg	1.54 m	19.3 m-kg
D350-689-013 Floor Provisions Kit,	2.0 lb	-18.2 in	-36 in-lb	60.7 in	121 in-lb
Fwd Position	0.9 kg	-0.46 m	-0.4 m-kg	1.54 m	1.4 m-kg
D350-689-011 Dual High Back Seat	28.1 lb	-18.2 in	-511 in-lb	63.7 in	1790 in-lb
Installation, Aft Position	12.7 kg	-0.46 m	-5.8 m-kg	1.62 m	20.57 m-kg
D350-689-013 Floor Provisions Kit,	3.1 lb	-18.2 in	-56 in-lb	62.2 in	193 in-lb
Aft Position	1.4 kg	-0.46 m	-0.6 m-kg	1.58 m	2.2 m-kg
D350-689-015 Seat Modification Kit	1.0 lb	-17.2 in	-17 in-lb .	60.7	61 in-lb
	0.5 kg	-0.44 m	-0.22 m-kg	1.54 m	0.77 m-kg
D350-689-017 Shoulder Harness,	4.4 lb	-18.2 in	-80.1 in-lb	60.7 in	267 in-lb
Fwd Position	2.00 kg	-0.46 m	-0.92 m-kg	1.54 m	3.08 m-kg
D350-689-017 Shoulder Harness, Aft	4.4 lb	-18.2 in	-80.1 in-lb	64.7 in	285 in-lb
Position	2.00 kg	-0.46 m	-0.92 m-kg	1.64 m	3.28 m-kg
D350-689-019 Control Guard, Fwd	0.5 lb	-9.0 in	-4.5 in-lb	60.7 in	30 in-lb
Position	0.23 kg	-0.23 m	-0.05 m-kg	1.54 m	0.35 m-kg
D350-689-019 Control Guard, Aft	0.5 lb	-9.0 in	-4.5 in-lb	64.7 in	32 in-lb
Position	0.23 kg	-0.23 m	-0.05 m-kg	1.64 m	0.38 m-kg
D350-689-021 Dual High Seat Back	29.2 lb	-18.2 in	-531 in-lb	60.7 in	1772 in-lb
Installation, LH Fwd Position	13.2 kg	-0.46 m	-6.1 m-kg	1.54 m	20.3 m-kg
D350-689-021 Dual High Seat Back	29.2 lb	-18.2 in	-531 in-lb	64.7 in	1889 in-lb
Installation, LH Aft Position	13.2 kg	-0.46 m	-6.1 m-kg	1.64 m	21.6 m-kg
D350-689-023 Energy Attenuating	2.5 lb	-18.2 in	-46 in-lb	62.2 in	156 in-lb
Floor Provisions Kit	1.1 kg	-0.46 m	-0.5 m-kg	1.58 m	1.7 m-kg

#### 5. PARTS LIST

Qty -011	Qty -013	Qty -015	Qty -017	Qty -019	@ty =021	Qty -023	Qty -041	Qty -043	Part Number	Description
Х									D350-689-011	DUAL HIGH BACK SEAT INSTALLATION, LH
1	Х								D350-689-013	FLOOR PROVISIONS KIT
		Х							D350-689-015	SEAT MODIFICATION KIT
			Х						D350-689-017	SHOULDER HARNESS KIT
				Х					D350-689-019	CONTROL GUARD KIT
					X		-		D350-689-021	DUAL HIGH BACK SEAT INSTALLATION, LH
					1	Х			D350-689-023	ENERGY ATTENUATING FLOOR PROVISIONS KIT
1							X		D350-689-041	DUAL HIGH BACK SEAT ASSEMBLY
					1			Х	D350-689-043	DUAL HIGH BACK SEAT ASSEMBLY
			<u> </u>				2	2	D3016-041	SEAT FRAME ASSEMBLY
							1	1	D3017-041	BACK FRAME ASSEMBLY
1				-	Ĭ			نسير	LD3018=⊅	SEAT CUSHION
1				1445				تيبسد	<b>1</b> D3019-1■	BACK CUSHION
	Ī						1	1	D3021-041	TUBE ASSEMBLY
							1	1	D3022-1	SEAT PAN
							1	1	D3023-1	BACK PANEL
							3	3	D3024-1	SPACER
	1								D3025-1	BEAM

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Qty -011	Qty -013	Qty -015	Qty -017	Qty -019	Qty -021	Qty -023	Qty -041	Qty -043	Part Number	Description
	1					1			D3026-1	CHANNEL
	1								D3027-1	CLIP
	1								D3027-3	CLIP
	1								D3027-5	CLIP
	4					4		ļ	D3027-7	CLIP
	····				<del> </del>	<u> </u>	4	<b></b>	D3028-1	STUD
		2				<del> </del>	2	<del> </del>	D3029-1	SPRING
		2		<del> </del>	<del></del>	-	2	<del>-</del>	D3030-1	LOCK
					-		2	2	D3031-1	LOOP
	1	ļi			<b> </b>				D3032-1	SPACER
	2	1		<u> </u>					D3032-1	SEAT TRACK
		4				<del> </del>		<del></del>	<del></del>	
		4		<del></del>	<del> </del>	<del> </del>		<b></b>	D3059-1	STUD
					<del>                                     </del>				D3060-1	BUSHING
		4		-		ļ			D3061-1	RADIUS BLOCK
				1					D3084-3	STRUT
	1			ļ				ļ	D3234-1	DOUBLER
	1				ļ	1		<u> </u>	D3234-3	DOUBLER
	2				ļ			,	D3234-5	SPACER ,
					<u> </u>			2	D3808-041	SEAT RAIL ASSEMBLY
								4	D3809-1	SLIDING BLOCK
						1			D3811-041	SEAT TRACK ASSEMBLY
			2						D4071-041	SHOULDER HARDNESS ASSY
		i					3	3	AN3-12A	BOLT
				1					AN4-12A	BOLT
				1		•			AN4-20A	BOLT
			2						AN5-4A	BOLT
							40	40	MS20600AD4W2	RIVET
							6	6	MS20600AD4W3	RIVET
						9	17	17	MS21042L3	NUT (OR MS21042-3)
				2	<del>                                     </del>	<del>                                     </del>	6	6	MS21042L4	NUT (OR MS21042-4)
		4	2	<del></del>	<del> </del>	1	<u> </u>	<del></del>	MS21042L5	NUT (OR MS21042-5)
	12	4	<del></del>	ļ		<del>                                     </del>			MS21059L3	NUTPLATE
		<del> </del>		<b>†</b>	<u> </u>	†	4	4	MS24693-S272	SCREW
	2	1	<del> </del>	-	<del> </del>	<del> </del>	<del>                                     </del>	<del>                                     </del>	MS24693-S273	SCREW
		<del>- '-</del>		<del> </del>	<del> </del>	<del> </del>	<u> </u>	8	MS24694-S3	SCREW
		<del> </del>	ł	<del>                                     </del>	<del> </del>	9	<del>                                     </del>	"	MS24694-S50	SCREW
	<del>                                     </del>	<del>                                     </del>		<del></del>	<del> </del>	+ -	<del>                                     </del>	4	MS24694-S148	SCREW
	6	3	<del> </del>		<del> </del>	<del> </del>	<b> </b>	4		
	<del>  0</del>	3	ļ	<del> </del> -	<del> </del>	<del> </del>	<del></del>		MS27039-1-10	SCREW
<u> </u>	1	-	<del> </del>	<u> </u>		ļ	4	4	MS27039-1-17	SCREW
	-	-		1	ļ	<u> </u>	6	6	MS27039-1-19	SCREW
		<u> </u>		L	<del>                                     </del>	<del> </del>	6	6	MS27039-4-21	SCREW
	6	3		ļ	ļ	ļ	17	17	NAS1149D0332J	WASHER (OR AN960JD10L)
	<u> </u>	<b></b>			ļ	9_	ļ	ļ	NAS1149D0363J	WASHER (OR AN960JD10)
	ļ			8	<u> </u>	<u> </u>			NAS1149D0416J	WASHER (OR AN960JD416L)
					L	L	6	6	NAS1149D0432J	WASHER (OR AN960JD416)
			4						NAS1149D0516J	WASHER (OR AN960JD516L)
		4					L		NAS1149D0563J	WASHER (OR AN960JD516)
				2					NAS43DD4-46N	SPACER

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